

B1  
CONCL.

signal converters [converting means],

wherein said electric signal [recording means] recorders are linear shaped and provided with a read-out line for each of longitudinal sections thereof, the read-out line being used for directly reading [out] the electric signals out of a light receptive area.

B2  
CONCL.

**Claim 3 (Twice Amended)**

The high-speed image sensor of [as in] claim 1, further comprising connectors [means] for directly connecting said signal [converting means] converters with the read-out lines without passing through said electric signal [recording means] recorders.

B3  
SOLUT'D

**Claim 5 (Twice Amended)**

The high-speed image sensor [as in] of claim 1, wherein each said electric signal [recording means] recorder is a charge coupled device type electric signal [recording means] recorder.

**Claim 6 (Twice Amended)**

The high-speed image sensor [as in] of claim 1, wherein each said electric signal [recording means] recorder is a MOS type electric signal [recording means] recorder.

**Claim 7 (Twice Amended)**

The high-speed image sensor [as in] of claim [5] 1, wherein each of said signal [converting means] converters is divided into a plurality of portions insulated from each other.

**Claim 8 (Amended)**

The high-speed image sensor [as in] of claim [6] 4, wherein each of said signal [converting means] converters is divided into a plurality of portions insulated from each other and wherein [plurality of amplification means] amplifiers for amplifying the electric signals are

*B3*  
*CONCL* interposed between said plurality of divided portions and said electric signal [recording means] recorders.

✓ Please add the following new claims:

*B4*  
*CONT'D* -- 12. A high-speed image sensor comprising a plurality of signal converters for generating electric signals according to an intensity of electromagnetic waves or particle streams, and a plurality of electric signal recorders for storing electric signals output from corresponding signal converters,

wherein said electric signal recorders are linear shaped and provided with a read-out line for each of longitudinal sections thereof, the read-out line being used for directly reading out the electric signals out of a light receptive area.

13. The high-speed image sensor of claim 12, wherein each said electric signal recorder is a charge coupled device type electric signal recorder.

14. The high-speed image sensor of claim 12, wherein each said electric signal recorder is a MOS type electric signal recorder.

15. The high-speed image sensor of claim 12, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

16. The high-speed image sensor of claim 14, wherein each of said signal converters is divided into a plurality of portions insulated from each other and wherein amplifiers for amplifying the electric signals are interposed between said plurality of divided portions and said electric signal recorders.

*BU  
CONT'D*

17. The high-speed image sensor of claim 12, further comprising a cuttable band-shaped space which continuously extends from one side to another side of the light receptive area.

18. A high-speed image sensor comprising a plurality of signal converters for generating electric signals according to an incident light intensity and a plurality of electric signal recorders for storing electric signals output from corresponding signal converters,

wherein said signal converters are disposed in all of, or every other, square or rectangular frames on a light receptive area; and

wherein a center line of each said electric signal recorder is inclined with respect to a line connecting two positions where electric signals are input from two of said signal converters, adjacent to each other in an extension direction of said electric signal recorders, to corresponding electric signal recorders.

19. The high-speed image sensor of claim 18, wherein each said electric signal recorder is a charge coupled device type electric signal recorder.

20. The high-speed image sensor of claim 18, wherein each said electric signal recorder is a MOS type electric signal recorder.

21. The high-speed image sensor of claim 18, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

22. The high-speed image sensor of claim 20, wherein each of said signal converters is divided into a plurality of portions insulated from each other and wherein amplifiers for amplifying the electric signals are interposed between said plurality of divided portions and said electric signal recorders.

*B4  
CONCL*

23. The high-speed image sensor of claim 18, further comprising a cuttable band-shaped space which continuously extends from one side to another side of the light receptive area.

24. A high-speed image sensor comprising a plurality of signal converters for generating electric signals according to an incident light intensity and a plurality of electric signal recorders for storing electric signals output from corresponding signal converters, wherein each of said signal converters is divided into a plurality of portions insulated from each other.

25. An image sensing apparatus comprising said high-speed image sensor claimed in claim 1.

26. An image sensing apparatus comprising said high-speed image sensor claimed in claim 12.

27. An image sensing apparatus comprising said high-speed image sensor claimed in claim 18.

28. An image sensing apparatus comprising said high-speed image sensor claimed in claim 24. --

---

**REMARKS**

Upon entry of this second Preliminary Amendment in connection with the present application, claims 1, 3, 5-8 and 12-28 will remain in connection with the present application.